

Application No. 10/709,506
Attorney Docket No. 5900/0146PUS1
Response to Final Office Action dated 21 Apr 2008
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AMENDMENTS TO THE DRAWINGS

Attached hereto is one sheet of corrected drawings that comply with the provisions of 37

C.F.R. § 1.84. The corrected drawings incorporate the following drawing changes:

In Fig.3, reference numeral 38 is changed to 18.

It is respectfully requested that the corrected drawings be approved and made a part of the record of the above-identified application.

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REMARKS

Claims 13-23 are now present in this application.

The specification and claims 13-18, 21 and 22 have been amended, and claim 23 has been presented. Reconsideration of the application, as amended, is respectfully requested.

Entry of Amendments

It is respectfully submitted that the foregoing amendments do not contain new matter, nor do they raise new issues. Since the present amendment is accompanied by an RCE, entry of the amendment is considered proper. As such, the Examiner is respectfully requested to enter the same.

Specification

The examiner pointed out three informalities in the specification. These have been corrected.

Drawings

The examiner objected to the drawings due to an incorrect reference numeral. Applicant submits a replacement fig 3 which corrects this reference numeral.

Rejections under 35 USC 112

The examiner rejected the claims due to omitted structural relationships and other problems. The claims have been amended to correct these problems. Some of the language has been amended, some has been deleted and some has been corrected in the independent claim from which it depends. Thus, these rejections are also overcome.

Rejection under 35 USC 103

Claims 13-22 stand rejected under 35 USC 103 as being obvious over Jinda, U.S. Publication 2002/0044115, in view of Ham, U.S. Publication 2004/0119730. This rejection is respectfully traversed.

Applicants submit that the claims as presently amended are not obvious over these references. Applicants have added limitations to both claims 13 and 17 which further define the invention over the prior art, which are specifically aimed at the determination of the voltage value of the over-drive data voltage pulse.

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Referring to Fig. 9 of Jinda and its related description in the specification (see column 7, lines 35-49, for example), "a" represents the target data value, "b1" represents a data value greater than the target data value "a," and "b2" represents a data value of the current image signal. Accordingly, the driving method disclosed in Jinda first applies a data value larger than the target data value, and later applies the current data value equal to the target value. In this case, the input image signal changes from small image data to large image data. It should be noted how a data value "b1" greater than the target data value is not disclosed.

In comparison, the present invention is significantly different from the cited prior art of Jinda in at least the following aspects:

(1) As disclosed in claim 13 of the present application, the technical feature, "delaying the frame data to produce a plurality of delayed frame data corresponding to the frame data" is neither taught nor suggested by Jinda.

(2) The way of comparing a delayed frame data in a previous frame period with a frame data in a present frame period next to the previous frame period in order to decide the voltage value of the over-drive data voltage pulse as described in claim 13 of the present invention is neither taught nor suggested by the prior art of Jinda.

(3) As disclosed in claim 13, the specific way of deciding the voltage value of an over-drive data voltage pulse is supported by the following description. With reference to Fig. 6 of the present invention and its related description in the specification (see the third paragraph of the detailed description, for example), an over-drive data value is defined according to the difference between the previous and the current data values and there are three conditions. As shown in Fig. 6, when the current data value $G(n+1)$ is larger than the previous data value $G(n)$, the over-drive data value $G(n,n+1)$ is larger than $G(n+1)$. When the current data value $G(n+2)$ is smaller than the previous data value $G(n+1)$, the over-drive data value $G(n+1,n+2)$ is smaller than $G(n+2)$. When the current data value $G(n+3)$ is equal to the previous data value $G(n+2)$, the over-drive data value $G(n+2,n+3)$ is equal to $G(n+3)$. Therefore, the prior art of Jinda fails to teach the way of determining an over-drive data value as adopted in the present invention.

The Examiner's attention is drawn to Fig. 9 of Jinda and Fig. 6 of the present application, which are reproduced below for the Examiner's convenience.

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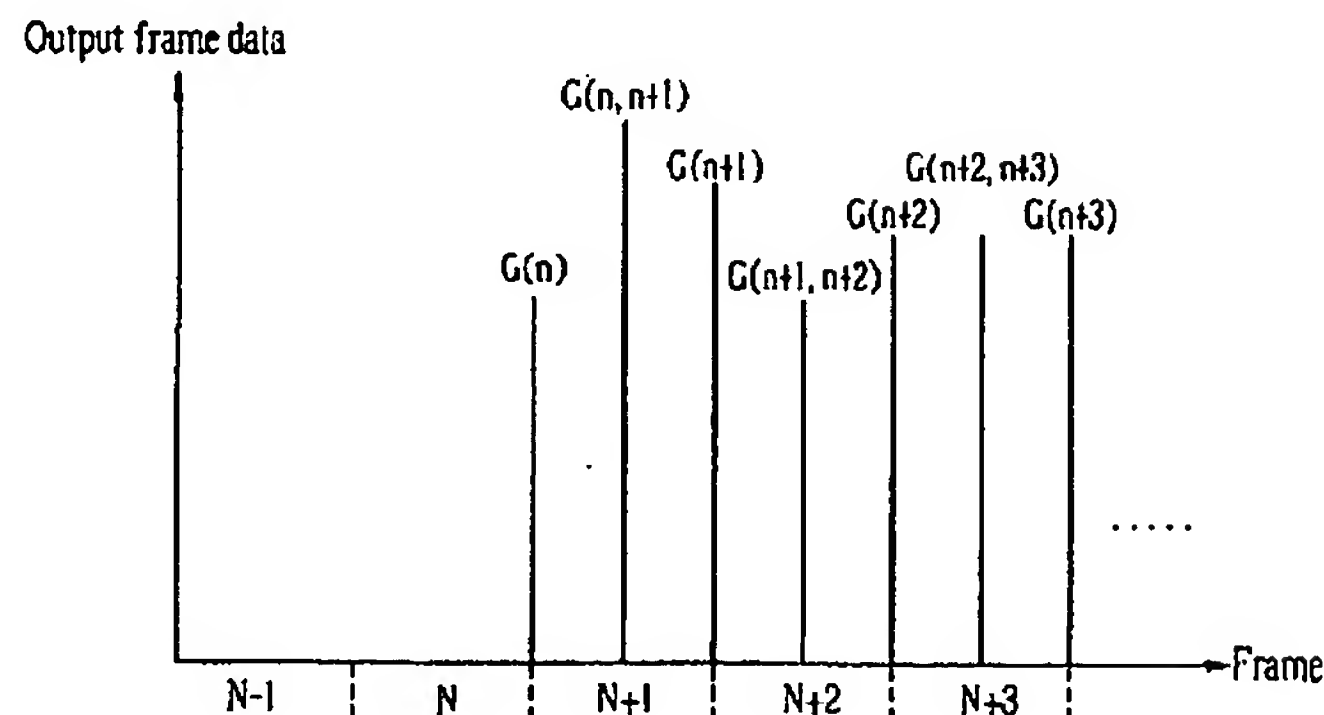


Fig. 6 of the present application

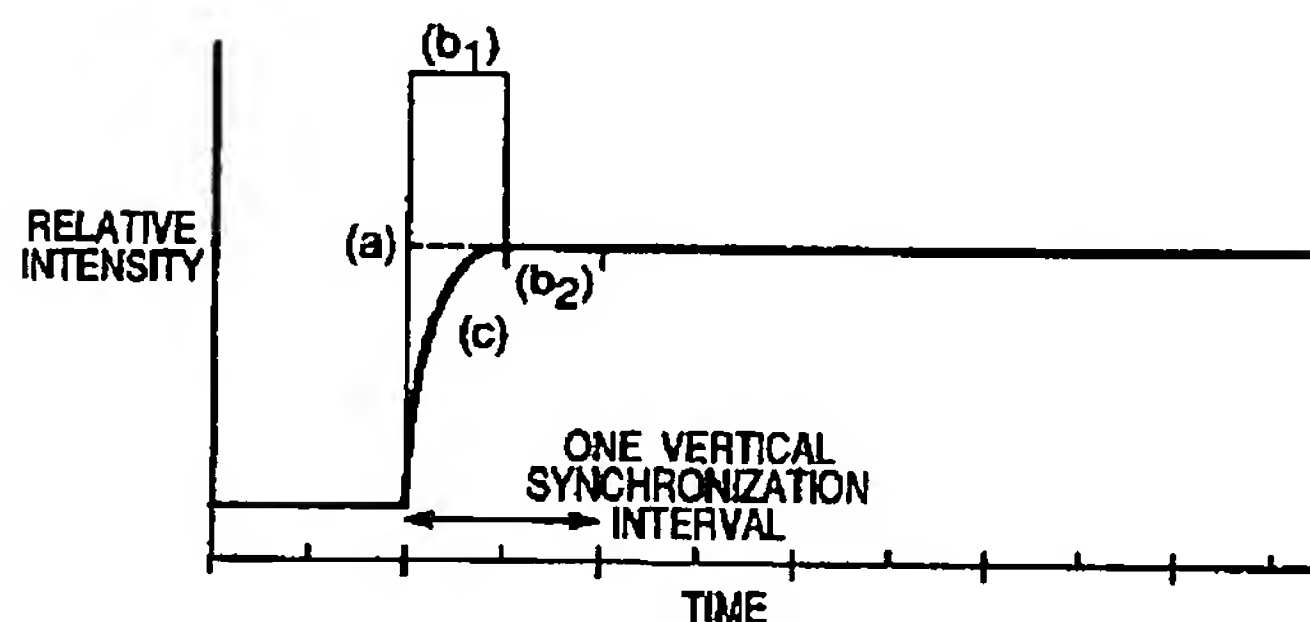


Fig. 9 of Jinda

Moreover, as described by the Examiner, Ham discloses a liquid crystal device panel comprising a plurality of scan lines, a plurality of data lines, and a plurality of pixels, wherein each pixel has a switching element and a liquid crystal element. Compared with the present invention, the cited prior art of Ham also fails to disclose the main technical features of the present invention concerning producing a plurality of corresponding delayed frame data by delaying the plural frame data and the way of deciding the voltage value of an over-drive data voltage pulse mentioned above.

Accordingly it is difficult and non-obvious for one of ordinary skill in the art to obtain the technical features of the present invention just by combining the technical features from the cited prior art of Jinda and Ham. Accordingly, the present invention is neither taught nor suggested by

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the prior art utilized by the Examiner. Independent claims 13 and 17 are therefore allowable.
Dependent claims 14-16 and 18-23 are likewise allowable.

Conclusion


Favorable reconsideration and an early Notice of Allowance are earnestly solicited.

Applicants have made a diligent effort to place the claims in condition for allowance. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Joe McKinney Muncy, Applicants' Attorney, at 703.621.7140 so that such issues may be resolved as expeditiously as possible.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 50-3828 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; in particular, extension of time fees.

Date: October 7, 2009

Respectfully submitted,


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